

AMENDMENTS TO CLAIMS:

The listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Previously presented) A method for overlaying overlay image data received from an overlay image source over main image data received from a main image source, comprising:

storing the overlay image data in a memory;

fetching the overlay image data from the memory;

up-scaling the fetched overlay image data according to a methodology that changes at least one dimension of an image; and

combining the fetched, up-scaled overlay image data with the main image data to form composite image data.

2. (Previously presented) The method of claim 1, further comprising down-scaling the overlay image data according to the methodology that changes at least one dimension of an image prior to said step of storing.

3. (Original) The method of claim 1, where the up-scaled overlay image data and the main image data define corresponding overlay image pixels and main image pixels respectively, wherein said overlay image pixels are either transparent or opaque, and wherein said step of combining includes

(a) selecting said overlay image pixels and not the corresponding said main image pixels where said overlay image pixels are opaque, and

(b) selecting said main image pixels and not the corresponding said overlay image pixels where said overlay image pixels are transparent.

4. (Original) The method of claim 1, further comprising resizing the main image data prior to said step of combining.

5. (Original) The method of claim 1, further comprising converting the main image data from one color format to another color format prior to said step of combining.

6. (Original) The method of claim 5, further comprising resizing the main image data prior to said step of combining.

7. (Previously presented) The method of claim 6, further comprising transmitting said composite image data to a display device having a display screen.

8. (Original) The method of claim 7, further comprising storing the transmitted said composite image data in a memory in said display device.

9. (Previously presented) The method of claim 1, further comprising transmitting said composite image data to a display device having a display screen.

10. (Original) The method of claim 9, further comprising storing the transmitted said composite image data in a memory in said display device.

11. (Previously presented) A method for overlaying overlay image data received from an overlay image source over main image data received from a main image source, comprising:

storing the overlay image data in a memory;

streaming the main image data from the main image source according to a streaming process that continuously transmits all of the main image data at a particular rate;

receiving the main image data;

fetching the overlay image data from the memory synchronously with the receiving of the main image data; and

combining the fetched overlay image data with the streamed main image data as the main image data is received to form composite image data.

12. (Previously presented) The method of claim 11, further comprising up-scaling the fetched overlay image data according to a methodology that changes at least one dimension of an image prior to the step of combining.

13. (Previously presented) The method of claim 12, further comprising down-scaling the overlay image data according to the methodology that changes at least one dimension of an image prior to the step of storing.

14. (Previously presented) The method of claim 12, where the up-scaled overlay image data and the main image data define corresponding overlay image pixels and main image pixels respectively, wherein said overlay image pixels are either transparent or opaque, and wherein said step of combining includes

(a) selecting said overlay image pixels and not the corresponding said main image pixels where said overlay image pixels are opaque, and

(b) selecting said main image pixels and not the corresponding said overlay image pixels where said overlay image pixels are transparent.

15. (Original) The method of claim 11, further comprising resizing the main image data prior to said step of combining.

16. (Original) The method of claim 11, further comprising converting the main image data from one color format to another color format prior to said step of combining.

17. (Original) The method of claim 16, further comprising resizing the main image data prior to said step of combining.

18. (Previously presented) The method of claim 17, further comprising transmitting said composite image data to a display device having a display screen.

19. (Original) The method of claim 18, further comprising storing the transmitted said composite image data in a memory in said display device.

20. (Previously presented) The method of claim 11, further comprising transmitting said composite image data to a display device having a display screen.

21. (Original) The method of claim 20, further comprising storing the transmitted said composite image data in a memory in said display device.

22. (Previously presented) A graphics controller for overlaying overlay image data received from an overlay image source over main image data received from a main image source, comprising:

a memory to store the overlay image data;

a fetching module to fetch the overlay image data from the memory;

a scaling circuit to scale the fetched overlay image data according to a methodology that changes at least one dimension of an image; and

a combining circuit to combine the fetched, up-scaled overlay image data with the main image data to form composite image data.

23. (Original) The graphics controller of claim 22, where the up-scaled overlay image data and the main image data define corresponding overlay image pixels and main image pixels respectively, wherein said overlay image pixels are either transparent or opaque, and wherein said combining circuit is adapted for

(a) selecting said overlay image pixels and not the corresponding said main image pixels where said overlay image pixels are opaque, and

(b) selecting said main image pixels and not the corresponding said overlay image pixels where said overlay image pixels are transparent.

24. (Original) The graphics controller of claim 22, further comprising a resizer for resizing the main image data provided to said combining circuit.

25. (Previously presented) The graphics controller of claim 22, further comprising a color format converter for converting the main image data from one color format to another color format.

26. (Original) The graphics controller of claim 25, further comprising a resizer for resizing the main image data provided to said combining circuit.

27. (Previously presented) The graphics controller of claim 26, further comprising a display interface for transmitting said composite image data to a display device having a display screen.

28. (Previously presented) The graphics controller of claim 22, further comprising a display interface for transmitting said composite image data to a display device having a display screen.

29. (Original) The graphics controller of claim 28, where the up-scaled overlay image data and the main image data define corresponding overlay image pixels and main image pixels respectively, wherein said overlay image pixels are either transparent or opaque, and wherein said combining circuit is adapted for

(a) selecting said overlay image pixels and not the corresponding said main image pixels where said overlay image pixels are opaque, and

(b) selecting said main image pixels and not the corresponding said overlay image pixels where said overlay image pixels are transparent.

30. (Original) The graphics controller of claim 29, further comprising a resizer for resizing the main image data provided to said combining circuit.

31. (Previously presented) The graphics controller of claim 29, further comprising a color format converter for converting the main image data from one color format to another color format.

32. (Original) The graphics controller of claim 31, further comprising a resizer for resizing the main image data provided to said combining circuit.

33. (Previously presented) A graphics controller for overlaying overlay image data received from an overlay image source over main image data received from a main image source, comprising:

a main image data interface to receive the main image data, the main image data being transmitted according to a streaming process that continuously transmits all of the main image data at a particular rate;

a memory to store the overlay image data;

a fetching module to fetch the overlay image data from the memory synchronously with the receipt of the main image data; and

a combining unit to receive the main image data from the main image data interface and the overlay image data from the fetching module, and to combine the fetched overlay image data with the streamed main image data to form composite image data.

34. (Previously presented) The graphics controller of claim 33, further comprising a scaling circuit to up-scale the fetched overlay image data provided to the combining unit according to a methodology that changes at least one dimension of an image.

35. (Original) The graphics controller of claim 34, where the up-scaled overlay image data and the main image data define corresponding overlay image pixels and

main image pixels respectively, wherein said overlay image pixels are either transparent or opaque, and wherein said combining circuit is adapted for

(a) selecting said overlay image pixels and not the corresponding said main image pixels where said overlay image pixels are opaque, and

(b) selecting said main image pixels and not the corresponding said overlay image pixels where said overlay image pixels are transparent.

36. (Original) The graphics controller of claim 33, further comprising a resizer for resizing the main image data provided to said combining circuit.

37. (Previously presented) The graphics controller of claim 33, further comprising a color format converter for converting the main image data from one color format to another color format.

38. (Original) The graphics controller of claim 37, further comprising a resizer for resizing the main image data provided to said combining circuit.

39. (Previously presented) The graphics controller of claim 38, further comprising a display interface for transmitting said composite image data to a display device having a display screen.

40. (Previously presented) The graphics controller of claim 33, further comprising a display interface for transmitting said composite image data to a display device having a display screen.

41. (Previously presented) The graphics controller of claim 40, further comprising a scaling circuit to up-scale the fetched overlay image data provided to the combining unit according to a methodology that changes at least one dimension of an image, where the up-scaled overlay image data and the main image data define corresponding overlay image pixels and main image pixels respectively, wherein said overlay image pixels are either transparent or opaque, and wherein said combining circuit is adapted for

(a) selecting said overlay image pixels and not the corresponding said main image pixels where said overlay image pixels are opaque, and

(b) selecting said main image pixels and not the corresponding said overlay image pixels where said overlay image pixels are transparent.

42. (Original) The graphics controller of claim 41, further comprising a resizer for resizing the main image data provided to said combining circuit.

43. (Previously presented) The graphics controller of claim 41, further comprising a color format converter for converting the main image data from one color format to another color format.

44. (Original) The graphics controller of claim 43, further comprising a resizer for resizing the main image data provided to said combining circuit.

45. (Currently amended) A system for overlaying overlay image data received from an overlay image source over main image data received from a main image source, comprising:

a source of main image data;

a source of overlay image data;

a display device having a display screen; and

a graphics controller comprising:

a memory to store the overlay image data;

a fetching module to fetch the overlay image data from the memory;

a scaling circuit to scale the fetched overlay image data according to a methodology that changes at least one dimension of an image; and

a combining circuit to combine the fetched, up-scaled overlay image data with the main image data to form composite image data.

46. (Original) The system of claim 45, where the up-scaled overlay image data and the main image data define corresponding overlay image pixels and main image pixels respectively, wherein said overlay image pixels are either transparent or opaque, and wherein said combining circuit is adapted for

(a) selecting said overlay image pixels and not the corresponding said main image pixels where said overlay image pixels are opaque, and

(b) selecting said main image pixels and not the corresponding said overlay image pixels where said overlay image pixels are transparent.

47. (Original) The system of claim 45, wherein said graphics controller includes a resizer for resizing the main image data provided to said combining circuit.

48. (Previously presented) The system of claim 45, wherein said graphics controller includes a color format converter for converting the main image data from one color format to another color format.

49. (Original) The system of claim 48, wherein said graphics controller includes a resizer for resizing the main image data provided to said combining circuit.

50. (Previously presented) The system of claim 49, wherein said graphics controller includes a display interface for transmitting said composite image data to the display device.

51. (Original) The system of claim 50, wherein said display device includes a memory for storing said composite image data.

52. (Previously presented) The system of claim 45, wherein said graphics controller includes a display interface for transmitting said composite image data to the display device.

53. (Original) The system of claim 52, wherein said display device includes a memory for storing said composite image data.

54. (Original) The system of claim 53, where the up-scaled overlay image data and the main image data define corresponding overlay image pixels and main image pixels respectively, wherein said overlay image pixels are either transparent or opaque, and wherein said combining circuit is adapted for

(a) selecting said overlay image pixels and not the corresponding said main image pixels where said overlay image pixels are opaque, and

(b) selecting said main image pixels and not the corresponding said overlay image pixels where said overlay image pixels are transparent.

55. (Original) The system of claim 54, wherein said graphics controller includes a resizer for resizing the main image data provided to said combining circuit.

56. (Previously presented) The system of claim 54, wherein said graphics controller includes a color format converter for converting the main image data from one color format to another color format.

57. (Original) The system of claim 56, wherein said graphics controller includes a resizer for resizing the main image data provided to said combining circuit.

58. (Original) The system of claim 54, wherein said source of main image data includes a camera.

59. (Original) The system of claim 54, wherein said source of main image data includes a host CPU.

60. (Previously presented) The system of claim 59, wherein the host CPU is adapted to down-scale the overlay image data provided to the memory according to a methodology that changes at least one dimension of an image.

61. (Previously presented) A system for overlaying overlay image data received from an overlay image source over main image data received from a main image source, comprising:

- a source of main image data;
- a source of overlay image data;
- a display device having a display screen; and
- a graphics controller comprising:

a main image data interface to receive the main image data, the main image data being transmitted according to a streaming process that continuously transmits all of the main image data at a particular rate,

a memory to store the overlay image data,

a fetching module to fetch the overlay image data from the memory synchronously with the receipt of the main image data, and

a combining unit to receive the main image data from the main image data interface and the overlay image data from the fetching module to combine the fetched overlay image data with the streamed main image data to form composite image data.

62. (Previously presented) The system of claim 61, wherein said graphics controller includes a scaling circuit for up-scaling the fetched overlay image data according to a methodology that changes at least one dimension of an image provided to said combining circuit.

63. (Original) The system of claim 62, where the up-scaled overlay image data and the main image data define corresponding overlay image pixels and main image pixels respectively, wherein said overlay image pixels are either transparent or opaque, and wherein said combining circuit is adapted for

(a) selecting said overlay image pixels and not the corresponding said main image pixels where said overlay image pixels are opaque, and

(b) selecting said main image pixels and not the corresponding said overlay image pixels where said overlay image pixels are transparent.

64. (Currently amended) The system of claim 61, wherein said ~~transmitting pipegraphics controller~~ includes a resizer for resizing the main image data provided to said combining circuit.

65. (Currently amended) The system of claim 61, wherein said ~~transmitting pipegraphics controller~~ includes a color format converter for converting the main image data from one color format to another color format.

66. (Currently amended) The system of claim 65, wherein said ~~transmitting pipegraphics controller~~ includes a resizer for resizing the main image data provided to said combining circuit.

67. (Currently amended) The system of claim 66, wherein said ~~transmitting pipegraphics controller~~ includes a display interface for transmitting said composite image data to the display device.

68. (Original) The system of claim 67, wherein said display device includes a memory for storing said composite image data.

69. (Previously presented) The system of claim 61, wherein said graphics controller includes a display interface for transmitting said composite image data to the display device.

70. (Original) The system of claim 69, wherein said display device includes a memory for storing said composite image data.

71. (Previously presented) The system of claim 70, wherein said graphics controller includes a scaling circuit for up-scaling the fetched overlay image data

provided to said combining circuit according to a methodology that changes at least one dimension of an image, where the up-scaled overlay image data and the main image data define corresponding overlay image pixels and main image pixels respectively, wherein said overlay image pixels are either transparent or opaque, and wherein said combining circuit is adapted for

- (a) selecting said overlay image pixels and not the corresponding said main image pixels where said overlay image pixels are opaque, and
- (b) selecting said main image pixels and not the corresponding said overlay image pixels where said overlay image pixels are transparent.

72. (Original) The system of claim 71, wherein said graphics controller includes a resizer for resizing the main image data provided to said combining circuit.

73. (Previously presented) The system of claim 71, wherein said graphics controller includes a color format converter for converting the main image data from one color format to another color format.

74. (Original) The system of claim 73, wherein said graphics controller includes a resizer for resizing the main image data provided to said combining circuit.

75. (Original) The system of claim 71, wherein said source of main image data includes a camera.

76. (Original) The system of claim 71, wherein said source of main image data includes a host CPU.

77. (Previously presented) The system of claim 76, wherein said host CPU down-scales the overlay image data provided to the memory according to the methodology that changes at least one dimension of the image.